SU-27

RUSSIAN KNIGHTS

REMOTE CONTROL MODEL AIRPLANE

OPERATING MANUAL

ART-TECH.COM ™

R/C HOBBY

Please read before operating this system!

We would like to thank you for purchasing our new product SU-27, designed for the hobby enthusiast. Base on its full-scale counterpart, this Russian Jet fighter model has a high roll rate and even can do the famous "Cobra maneuver flight. Even the beginner can easily setup the model and fly it stably. It is also made as a highly maneuverable model for the intermediate to expert pilot. With the SU-27 model which includes a Radio Transmitter, a speed controller, two electric ducted fans, and electric servo, you will have a joyful time in model flying.

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Specifications
Length: 1088mm (42 ¾ in)
Wing Span: 793 mm (31 ¼ in)
Wing Area: 15.6 dm2(242.0sq in)
Flying Weight: 780g (27.5oz)
Wing Loading: 35g / dm2 (1.24oz/sq.ft)
Thrust: ≥400g
Ducted fan: EDF 64 X 2
Battery: Li-po 11.1v2200MAH
Servo: 9g X 5
Receiver: micro 6CH Double ESC: 18 AMP Transmitter: 4 CH Motor: B2015-31s

Product character	
Accomplishment	100%
Difficulty of assembly	★☆☆☆☆
Difficulty of maintain	★★★★☆

Difficulty of control	★★★☆☆
Anti-shatter	★★★☆☆

Main Parts of SU-27

Head cover

Fuselage

Main wing (left) Main wing (right)

Horizontal stabilizers (left) Horizontal stabilizers (right)

Vertical stabilizers (left) Vertical stabilizers (right)

Transmitter

Charger

Battery

A.B.Glue

Electric ducted fans (had been pre-installed)

Landing gear

Wheel

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Safety precautions! Safety warning!

Please read this section until you fully understand!

1. Do not fly in Strong wind.

2. Never fly the SU-27 in crowded areas, where there are lots of people, automobiles on the road and power lines over head. Also not to fly around the airport. Please make yourself enough room for the flying and operating, as the plane can travel at high rates of speed. Remember you are responsible for the safety of others.

3. You had better not fly the SU-27 on the sands, as the fans will be easily broken by the sands.

4. Do not attempt to catch the SU-27 while it is flying.

5. Before flying, check to make sure that no one else is operating on the same frequency, otherwise may cause interference.

6. Never leave this system unattended around children with battery in the unit, as injury can be caused due to children's turning on the transmitter or the plane.

7. Turn the speed controller all the way down (clockwise) before the plane start to fly; otherwise the fans will work at full power.

8. During the preparation for the flight, please remember to turn on the transmitter before connect the battery pack.

9. The consumers over the age of 14, should have an experienced adult guide. Not recommend for the children under the age of 14.

10. Never leave this system unattended with batteries in the unit, and around children, as injury can be resulted due to children turning on the transmitter or the plane.

Statement

1. This is not a toy. It is for experienced modelers only. You are responsible for the safe operation of this model and any damage or harm it may cause;

2. Please adjust this plane according to instruction and make sure finger and other parts out of rotating parts of plane, or it may cause damage to the plane or injury.

3. Users should follow all instructions properly and assemble the model correctly. It is your responsibility to insure the battery is charged correctly, following these instructions.

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Charge Mode and Warning

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Specifications:

Input voltage: DC 10V-15V

Output voltage: DC 7.4V & 11.1V (to 2 or 3 cell Li-po battery)

Charging current: 0.3A-1.0A (can be continuously adjusted)

12V DC Power Supplier

Indicator state:

Green: Charge complete & no battery

Red: Charging

Flash: Drip current charging

Dimension: 72x49x22mm / 2.8x2x0.9inch

The batteries are inspected separately. When the voltage reaches 4.20V, the charging process stops.

Operating:

1. Then plug cigarette into its socket in car (Adapter should be connected if charge at home: connect the adapter to home power socket, then plug the adapter' DC end to charger). The LED will turn green indicating it is ready for charging.

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2. Connect the battery to charger per its interface mark. The LED becomes red, which means charging is on the way.

3. Adjust the current among 0.3A-1.0A. In order to prolong battery' life-span, we recommend to charge them under low current if you have enough time.

4. When LED flashing, the charger will enter the stage of drip current charging. The LED turns green when fully charged, and the battery will be used at any time.(Drip current charging: Almost full and usable)

Notice:

1. Do not insert anything conductive into the cooling hole when power is on, or damage will be caused to the charger.

2. While charging is in process, please do not place it near flammable materials.

3. It is not allowed to charge two-cell and three-cell Li poly battery at the same time.

4. Expect Li poly; this charger is not allowed for other kinds of battery.

5. While charging, please keep it out of the reach of Children.

6. When this charger is in use, please do not go away and leave it unwatched if any abnormality occurs (such as the power indicator is off, the temperature of the battery rise rapidly, etc.) stop charging immediately.

7. Please do not use power with output voltage higher than 15V.

8. Please do not disassemble the charger or its accessories.

9. When the battery is not cool down, please do not urge to charge it.

Safety Instructions for Li-poly batteries

01. Do not disassemble or reconstruct the battery.

02. Do not short-circuit the battery.

03. Do not use or leave the battery nearby the fire, stove or heated place (more than 80 ˚C).

04. Do not immerse the battery in water or sea water, do not get it wet.

05. Do not charge the battery nearby the fire or under the blazing sunlight.

06. Do not drive a nail into the battery, strike it by hammer or tread on it.

07. Do not impact or toss the battery.

08. Do not use the battery with conspicuous damage or deformation.

09. Do not make the direct soldering on the battery.

10. Do not reverse charge or over discharge the battery.

11. Do not reverse charge or reverse connect.

12. Do not connect the battery to the ordinary charger socket or car cigarette jack.

13. Do not use the battery for unspecified equipment.

14. Do not touch the leaking battery directly, please wash your skin or clothes with water I they are bedewed by liquid leaking from the battery.

15. Do not mix the Li-Poly battery with other un-chargeable battery in using.

16. Do not continue charging the battery over the prescriptive time.

17. Do not put the battery into the microwave oven or high-pressure container.

18. Do not use the abnormal battery.

19. Do not use or keep the battery under the sunlight.

20. Do not use the battery nearby the place where generates static electricity (over 64V).

21. Do not charge the battery when the environmental temperature is under 0°C or over 45°C.

22. If you find the battery leaking, smelling or abnormal, stop using it and return it to the seller.

23. Keep the battery away from the children.

24. Use the specified charger and observe charging requirement (under 1A).

25. When using by minors, parents should show them to the correct instruction.

CAUTION

1. Be fully charged under no more than 1 A voltage by using the specified charger

2. Be discharged under 5C voltage but avoiding discharge time too long to harm the battery.

3. Repeat the first and second step one or two times.

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Installation instruction

1. Put the two pieces of wings into fuselage with glue.
2. Make sure the main wing is kept horizontal until the glue gets dry.
3. Install the controlling aileron servo on the fuselage.
4. Connect the control stick with the aileron.

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5. Tail wing: screw the screws on the tail to fix the elevator and horizontal stabilizers.

PA 1.7 X 16 (2pcs)

PA 1.7 X 23 (2pcs)

6. Tail wing: screw the screws on the tail to fix the elevator and vertical stabilizers.

PA 1.7 X 10 (4pcs)

7. Make sure the arms of servos are at the same direction.
8. Glue the head cover with the front of the fuselage.

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9. Cut off the excessive part of the tail and glue the scale tail part to the back of the fuselage.
10. Cut off the missile rack, and glue them on the both wing tip of the main wing.

Flight adjustment

SU-27 will fly better with full-charged batteries.

Keep flight horizontal:

When you find it is difficult to fly SU-27 horizontally, please adjust the micro-adjuster on the transmitter. For example, when you find SU-27 always fly upward, please push the micro-adjuster on the transmitter toward the top, as this will adjust the position of the elevator.

Mode 2

Functions for control set

Mode 1

Elevator down

Rudder left Rudder right

Elevator up

Trim

Crystal

Throttle Max

Aileron left Aileron right

Throttle Min

Power indicator

Power switch

Servo reverse

Mode 2

Throttle Max

Elevator down

Rudder left Rudder right

Trim

Crystal

Throttle Min

Aileron left Aileron right

Elevator up

Power indicator

Power switch

Servo reverse

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Flight attention

Do not fly at any place where another same-frequency model is being operated.

Taking off: Always take off toward the wind.

When launch SU-27 by hands, maximize the power (include the micro-adjuster) and run several meters, then throw the SU-27 horizontally. When launch SU-27 on the ground, maximize the power and let SU-27 accelerate in direction of the wind and keep it running straightly, after it run more than 60 feet, then pull the elevator joy stick, and it will take off.

Flight: To keep SU-27 flying only need 50% of the maximum power. It is a good idea to fly with power for a while and glide for a while. In this way you can prolong the maximum flight time and familiarize yourself with landing approaches.

Landing: Before landing, switch off the power, fly along with the wind, and when SU-27 flies near to the ground, then pull the elevator joystick and SU-27 will landing gently. With more practice, then you could control the model easily.

Phenomenon	Problem	How to solve
Motor does not run	★ Battery is not fully charged. ★ The battery in the transmitter is not at full power. ★ The circuit in SU 27 has been damaged due to crash.	★ Charge the battery. ★ Install new dry cells. ★ Contact the distributor.
Can not fly straight	★ The rudder is not on the center position.	★ Adjust the rudder on the center position. ★ Adjust the micro-adjuster on the transmitter for the rudder on the suit position.
Can not climb	★ The battery is not fully charged. ★ The elevator declines downward.	★ Charge the battery. ★ Adjust the micro-adjuster on the transmitter.
Control distance is very short \..	★ The battery of transmitter is not at full power. ★ The antenna of transmitter has not been completely pulled out.	★ Install new dry cells. ★ Completely pull out the antenna of transmitter. ★ I

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Spare Parts List

No: 7103C
Main wing

No: 7102C
Fuselage

No: 7104C
Tail wing

No: 7108C
Electric ducted fans

No: 7105C
Landing gear

No: 71090
Nose cone

No: 3F024
Li-po 11.1V2200Mah

There will be no notice while changes caused by improving.
Without permitting, it is forbidden to do copy of the content of this manual.
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